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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/713,209	11/17/2003	Yuki Hongo	Q78389	2460

7590 07/19/2005
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EXAMINER

NAKARANI, DHIRAJLAL S

ART UNIT PAPER NUMBER

1773

DATE MAILED: 07/19/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/713,209

Applicant(s)

HONGO ET AL.

Examiner

D. S. Nakarani

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 17 November 2003.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-4 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-4 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 17 November 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input checked="" type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. Claim1 is objected to because of the following informalities: claim 1, line 5, the phrase "1.65t" should read - -1.65 to - - and line 6 the phrase "thickness of 30-16 nm" should read --thickness of 30 to 160 nm (see at least page 5, line 10).

Appropriate correction is required.

2. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

3. Claims 1-4 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-24 of U.S. Patent No. 6,773,835 B2 to Shoshi et al in view of Kumazawa et al (U.S. Patent 5,472,798. Shoshi et al claims a film for optical applications comprising a substrate film coated at least one surface with a hard coat layer composed of a cured product of ionizing radiation curable compound (Claim 1 and col. 3 lines 14-21). Shoshi et al's hard coat layer has refractive index from 1.47 to 1.60 and also has antiglare property (2). Therefore, hard coat layer is a light transmitting layer. Shoshi et al's high refractive layer (B) has refractive index in

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a range of 1.65 to 1.80 and thickness in range of 60 to 160 nm. These ranges falls within the claimed respective ranges. Shoshi et al's low refractive index layer has refractive index in the range of 1.37 to 1.47 which falls within the claimed range. Shoshi et al's compositions of the layer (B) and of the layer (C) are identical to the claimed compositions for respective layers. Shoshi et al. do not disclose claimed thickness of 10 to 50 nm for the low refractive index layer (C).

However, Kumazawa et al teach how to optimize thicknesses of high and low refractive index layers for reflection of desired wavelength of visible light (col. 3 lines 25-57 and col. 7, lines 25-65).

Therefore it would have been obvious to a person of ordinary skill in the art to which this application pertains to utilize Kumazawa et al in the invention of Shoshi et al to determine thicknesses of high and low refractive layers to adjust amount of given light to reflect.

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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5. Claims 1-4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nishida et al (U.S. Patent Application Publication U.S. 2002/0127408 A1) in view of Kumazawa et al (U.S. Patent 5,472,798).

Nishida et al disclose an antireflection film comprising an organic film (1), a hard coating layer (2), an electrically conductive high refractive index layer (3) and a low refractive index layer (4). Nishida et al's high refractive index layer comprises two or more types of metal oxide in which at least one of two or more types of the metal oxide is electrically conductive metal oxide (Abstract). Nishida et al's high refractive index layer comprises of a cured product of an ionizing radiation curable compound and contains antimony doped tin oxide (ATO) or indium doped tin oxide (ITO) and other metal oxide such as TiO_2 , ZrO_2 etc (claim 2). Nishida et al disclose ratio of ATO or ITO to TiO_2 or ZrO_2 , which falls within claimed range (Table 1). Nishida et al's high refractive index layer has thickness of 75 to 90 nm (Paragraph 0021). Nishida et al also disclose that low refractive index layer has refractive index from 1.35 to 1.55 (Paragraph 0027). Nishida et al. state that low refractive index silicone resin conventionally used as a material for the low refractive index layer but has poor chemical resistance (Paragraph 0006). Nishida et al's low refractive index layer contains acrylic resin (Paragraph 0023). Nishida et al's low refractive index layer has thickness of 85 to 110 nm (Paragraph 0025) which falls outside the claimed range.

Kumazawa et al teach how to optimize thicknesses of high and low refractive index layers for desired color of the film (Col. 5, lines 25-57 and col. 7, lines 25-65).

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Therefore it would have been obvious to a person of ordinary skill in the art at the time of this invention made to utilize disclosure of Kumazawa et al in the invention of Nishida et al to make desired colored antireflection film for aesthetic appearance.

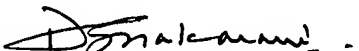
No claims are allowed.

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to D. S. Nakarani whose telephone number is (571) 272-1512. The examiner can normally be reached on Tuesday-Friday from 7:00 am to 5:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Carol Chaney can be reached on (571) 272-1284. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

D. S. Nakarani/af
June 27, 2005


D. S. NAKARANI
PRIMARY EXAMINER